

Independent claim 1 specifies an improvement in a humidification system including an atomizing nozzle, a water supply and a control selectively supplying pressurized water from the supply to the atomizing nozzle so that atomized vapor is provided. The improvement comprises an ozone generator and an air compressor operatively connected between the ozone generator and the atomizing nozzle for delivering pressurized ozone to the atomizing nozzle so that the nozzle delivers ozonated vapor.

Faddis et al. does not disclose or suggest an atomizing nozzle or any compressor for delivering pressurized ozone to an atomizing nozzle.

Faddis et al. relates to a sterilization system for medical instruments using ozone. Particularly, ozone is mixed with water vapor and provided to a sterilization chamber. Contrary to the statements made in the action, Faddis et al. does not disclose an atomizing nozzle. Water vapor is created by heating the water in a heating block 88 which then passes through a nozzle 94 into a line 93, see Fig. 6. The nozzle 94 is not an atomizing nozzle. Moreover, the ozone is mixed with the water vapor downstream from the nozzle 94. The action references item 87 as an air compressor. Element 87 references a pump for urging the outlet from the humidity chamber to the sterilization chamber. It does not pressurize ozone which is then supplied to an atomizing nozzle.

Claim 1 is not obvious over Faddis et al.

Independent claim 5 specifies a humidification system for a product holding space comprising an air atomizing nozzle positioned proximate the product holding space and including a water inlet and an air inlet. A water supply and a control selectively supply

pressurized water from the supply to the atomizing nozzle water inlet. An air compressor is operatively connected between an ozone generator and the atomizing nozzle air inlet for delivering pressurized ozone to the atomizing nozzle so that the nozzle delivers ozonated vapor into the product holding space.

Claim 5 is not obvious for the same reasons discussed above relative to claim 1. Moreover, Faddis et al. does not disclose a nozzle positioned proximate a product holding space. The nozzle 94 in Faddis et al. is positioned proximate the humidity chamber. Nor does the nozzle 94 include both a water inlet and an air inlet. There is only a single inlet. There is no air compressor connected to an inlet for the nozzle. None of these deficiencies are suggested by Faddis et al. Therefore, claim 5 is believed allowable.

Claim 10 depends from claim 5 and is believed allowable for the same reasons therefor.

For the above reasons, claims 1, 5 and 10 are believed allowable and withdrawal of the rejection is requested.

Applicants traverse the rejection of claims 2-4 and 6-8 as obvious over Faddis et al. in view of Karlson U.S. Patent No. 4,517,159.

Claims 2-4 depend from claim 1 and claims 6-8 depend from claim 5. The deficiencies with respect to Faddis et al. and the independent claims are noted above. Karlson does not disclose or suggest these deficiencies. Karlson is cited for use of an air inlet filter, an air dryer and muffler connected to an inlet of an ozone generator. Even if Karlson were combined

with Faddis et al., the combined system carries over the deficiencies noted above so that it does not result in the claimed invention.

For the above reasons, claims 2-4 and 6-8 are believed allowable and withdrawal of the rejection is requested.

Applicants traverse the rejection of claims 1, 5, 9 and 11-13 as obvious over Dettling et al. U.S. Patent No. 6,406,006 in view of Faddis et al.

Dettling et al. and Faddis et al. are not properly combined.

The deficiencies with respect to Faddis et al. and claims 1 and 5 are noted above.

Dettling et al. discloses a basic humidification system for a display case or the like. This system uses atomizing nozzles. The system in Dettling et al. is generally consistent with that discussed under the heading "Background of the Invention" of the instant application. Such a system is used for providing hydration.

The system of Faddis et al. is used for medical instrument sterilization that uses ozone as a sterilization agent. It is not apparent from either of the references that it would be appropriate to use a sterilization agent in a hydration system used for fresh and/or perishable food products as in Dettling et al.

The Examiner has merely selected elements out of Faddis et al. and combined them with elements of Dettling et al. However, there is no disclosure or suggestion that these elements may be combined to form a system similar to that set forth in independent claims 1 and 5 herein. Moreover, it is not apparent how these elements would be combined. The Faddis et al. reference injects ozone into a line of water vapor. It is not apparent where ozone would be or

could be introduced into the system of Dettling et al. Nor has the Examiner presented a convincing line of reasoning why such a combination of elements would have been obvious. Therefore, the rejection is improper. See Ex parte Clapp, 227 USPQ 972 (PTO Bd. of Appeals 1985). The alleged reason for the combination cited in the action is to provide for sterilization and humidification of food items within a display case. However, it is not apparent that there is any need to provide sterilization of food products. Medical products are sterilized and remain so to avoid infection and the like in medical procedures. It is not generally apparent that food products in a display case would have any need for sterilization as they are displayed in an unsterile environment. The Examiner is relying on hindsight based on applicants' invention described herein. Such use of hindsight is improper.

For these reasons, claims 1 and 5, and claim 9 which depends from claim 5, are not obvious.

Independent claim 11 specifies a humidification system for a refrigerated display case comprising a plurality of air atomizing nozzles positioned proximate the display case and each including a water inlet and an air inlet. A water supply and a control selectively supply pressurized water from the supply to the atomizing nozzle water inlets. An air compressor is operatively connected between an ozone generator and atomizing nozzle air inlets for delivering pressurized ozone to the atomizing nozzle so that the nozzles deliver ozonated vapor into the display case.

Independent claim 11 is believed allowable for the same reasons discussed above relative to claim 5. Claims 12 and 13 which depend from claim 11 are likewise believed allowable.

For the above reasons, claims 1, 5, 9 and 11-13 are believed allowable and withdrawal of the rejection is requested.

Applicants traverse the rejection of claims 2-4 and 6-8 as obvious over Dettling in view of Faddis et al. and Karlson.

Claims 2-4 and 6-8 depend from claims 1 and 5, respectively. The deficiencies with respect to Dettling and Faddis are discussed above. Karlson does not disclose or suggest these deficiencies, as noted above. Instead, Karlson is cited for an air inlet filter, air dryer and muffler connected to an inlet of an ozone generator. While Karlson might be properly combinable with Faddis et al., neither Faddis et al. or Karlson is properly combinable with Dettling et al.

For the above reasons, claims 2-4 and 6-8 are believed allowable and withdrawal of the rejection is requested.

Summarizing, none of the references disclose or suggest use of ozone in connection with a humidification system using an air atomizing nozzle. Particularly, none of the references suggest the desirability of providing ozone for use in a produce display case or the like.

Reconsideration of the application and allowance and passage to issue are requested.

Respectfully submitted,



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